

sites as appropriate, rather than waiting to take one consolidated response action. The 1985 NCP originally codified this policy that remedial actions may be staged through the use of operable units.

EPA received comments urging the Agency to strengthen its commitment to early site action through expanded use of removal actions at NPL sites without foreclosing more extensive remedial actions. In response, EPA encourages the taking of early actions, under removal or remedial authority, to abate the immediate threat to human health and the environment. Early actions using remedial authorities are initiated as operable units. In deciding between using removal and remedial authorities, the lead agency should consider the following: (i) The criteria and requirements for taking removal actions in today's rule; (ii) the statutory limitations on removal actions and the criteria for waiving those limitations; (iii) the availability of resources; and (iv) the urgency of the site problem.

EPA expects to take early action at sites where appropriate, and to remediate sites in phases using operable units as early actions to eliminate, reduce or control the hazards posed by a site or to expedite the completion of total site cleanup. In deciding whether to initiate early actions, EPA must balance the desire to definitively characterize site risks and analyze alternative remedial approaches for addressing those threats in great detail with the desire to implement protective measures quickly. Consistent with today's management principles, EPA intends to perform this balancing with a bias for initiating response actions necessary or appropriate to eliminate, reduce, or control hazards posed by a site as early as possible. EPA promotes the responsiveness and efficiency of the Superfund program by encouraging action prior to or concurrent with conduct of an RI/FS as information is sufficient to support remedy selection. These actions may be taken under removal or remedial authorities, as appropriate.

To implement an early action under remedial authority, an operable unit for which an interim action is appropriate is identified. Data sufficient to support the interim action decision is extracted from the ongoing RI/FS that is underway for the site or final operable unit and an appropriate set of alternatives is evaluated. Few alternatives, and in some cases perhaps only one, should be developed for interim actions. A completed baseline risk assessment generally will not be available or necessary to justify an interim action.

Qualitative risk information should be organized that demonstrates that the action is necessary to stabilize the site, prevent further degradation, or achieve significant risk reduction quickly. Supporting data, including risk information, and the alternatives analysis can be documented in a focused RI/FS. However, in cases where the relevant data can be summarized briefly and the alternatives are few and straightforward, it may be adequate and more appropriate to document this supporting information in the proposed plan that is issued for public comment. This information should also be summarized in the ROD. While the documentation of interim action decisions may be more streamlined than for final actions, all public, state, and natural resource trustee participation procedures specified elsewhere in this rule must be followed for such actions.

Several commenters endorsed placing the expectations and management principles into the rule to avoid collection of unnecessary data and evaluation of too wide a range of alternatives. Without providing a specific example, a commenter noted that many past Superfund cleanups have experienced the opposite of a bias for action by including unnecessary and costly data collection and report preparation without reaching conclusions on the recommended site remediation.

EPA agrees that site-specific data needs, the evaluation of alternatives and documentation of the selected remedy should reflect the scope and complexity of the site problems being addressed. This principle, derived from the streamlining principle discussed in the preamble to the proposal, has been incorporated into today's rule. The goal, expectations, and management principles incorporated into the rule, promote the tailoring of investigatory actions to specific site needs.

On a project-specific basis, recommendations to ensure that the RI/FS and remedy selection process is conducted as effectively and efficiently as possible include:

1. Focusing the remedial analysis to collect only additional data needed to develop and evaluate alternatives and to support design.
2. Focusing the alternative development and screening step to identify an appropriate number of potentially effective and implementable alternatives to be analyzed in detail. Typically, a limited number of alternatives will be evaluated that are focused to the scope of the response action planned.

3. Tailoring the level of detail of the analysis of the nine evaluation criteria (see below) to the scope and complexity of the action. The analysis for an operable unit may well be less rigorous than that for a comprehensive remedial action designed to address all site problems.

4. Tailoring selection and documentation of the remedy based on the limited scope or complexity of the site problem and remedy.

5. Accelerating contracting procedures and collecting samples necessary for remedial design during the public comment period.

Although the level of effort and extent of analysis required for the RI/FS will vary on a site-specific basis, the procedures for remedy selection do not vary by site. The lead agency is responsible for meeting procedural requirements, including support agency participation, soliciting public comment, developing an administrative record, and preparing a record of decision.

A more streamlined analysis during an RI/FS may be particularly appropriate in the following circumstances:

1. Site problems are straightforward such that it would be inappropriate to develop a full range of alternatives. For example, site problems may only involve a single group of chemicals that can only be addressed in a limited number of ways, or site characteristics (e.g., fractured bedrock) may be such that available options are limited. To the extent that obvious, straightforward problems exist, they may create opportunities to take actions quickly that will afford significant risk reduction.

2. The need for prompt action to bring the site under initial control outweighs the need to examine all potentially appropriate alternatives.

3. ARARs, guidance, or program precedent indicate a limited range of appropriate response alternatives (e.g., PCB standards for contaminated soils, Superfund Drum and Tank Guidance, Best Demonstrated Available Technology (BDAT) requirements).

4. Many alternatives are clearly impracticable for a site from the outset due to severe implementability problems or prohibitive costs (e.g., complete treatment of an entire large municipal landfill) and need not be studied in detail.

5. No further action or extremely limited action will be required to ensure protection of human health and the environment over time. This situation will most often occur where a removal measure previously has been taken.